AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §26-53),

Town of Belchertown Department of Public Works
290 Jackson Street, P.O. Box 670
Belchertown, Massachusetts 01007 - 0670

is authorized to discharge from the facility located at

Belchertown Water Reclamation Facility
175 George Hannum Road
Belchertown, Massachusetts 01007

to receiving waters: **Lampson Brook to Connecticut River**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective sixty days after the date of signature.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on July 11, 1997.

This permit consists of 9 pages in Part I including effluent limitations, monitoring requirements; Attachment A, Freshwater Chronic Toxicity Test; Sludge Guidance; and 35 pages in Part II including General Conditions and Definitions.

Signed this 28th day of December, 2000

/Signature on File/
Linda M. Murphy
Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

Acting Assistant Commissioner
Bureau of Resource Protection
Department Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge treated effluent from outfall serial number 001. Such discharge shall be limited and monitored by the permittee as specified below.

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Flow	MGD	1.0[1]	----	Report	Continuous[2]	Recorder
BOD_5 (June1 - October 31)	mg/l	5.0	7.5	Report	1/Week[3]	24Hr.Composite[4]
	lbs/day	42	63	Report		
May only	mg/l	15	15	Report	1/Week[3]	24Hr.Composite[4]
	lbs/day	125	125	Report		
BOD_5 (November1- April 30)	mg/l	30	30	Report	1/Week[3]	24Hr.Composite[4]
	lbs/day	250	250	Report		
TSS (June1 - October 31)	mg/l	15	15	Report	1/Week[3]	24Hr.- Composite[4]
	lbs/day	125	125	Report		
May only	mg/l	20	20	Report	1/Week[3]	24Hr.- Composite[4]
	lbs/day	167	167	Report		
TSS (November 1- April 30)	mg/l	30	30	Report	1/Week[3]	24Hr.- Composite[4]
	lbs/day	250	250	Report		
pH	s.u.	(See Condition I.A.1.b. on Page 4 of 9)			Daily	Grab

Effluent Characteristic	Units	Discharge Limitation			Monitoring Requirement	
		Average Monthly	Average Weekly	Maximum Daily	Measurement Frequency	Sample Type
Total ammonia, as N						
May only	mg/l	7	7	10	1/month	24 - Hr.Composite[4]
June to October 31	mg/l	1	1	1.5	1/month	24 - Hr.Composite[4]
Fecal Coliform[5] (April 1 - October 31)	CFUs /100 ml	200	----	400	1/week	Grab
Nitrite+Nitrate,	mg/l	Report	----	----	1/month	24-Hr.Composite[4]
TKN	mg/l	Report	----	----	1/month	24-Hr.Composite[4]
Dissolved Oxygen	mg/l	6	----	----	1/week	Grab
LC_{50}[6]	%	----	----	100	4/year [8]	See Protocol
C-NOEC [7]	%	----	----	94	4/year [8]	See Protocol
Copper[9]	ug/l	8.1	----	12.0	1/month	24-Hr. Composite[4]
Phosphorus[9]	mg/l	0.25	----	----	1/week	24-Hr.Composite[4]
	lbs/day	2.085	----	----	1/Week	

Footnotes:

1. This limit is **annual average.** The permittee shall report the annual average flow each month. The annual average, shall be calculated using the monthly average flow from the reporting month and the monthly average flows from the previous 11 months.

2. For flow, report maximum and minimum daily rates and total flow for each operating date.

3. Sampling required for influent and effluent.

4. A 24-hour composite sample will consist of at least twenty four (24) grab samples taken during one working day (e.g 6:00 AM -5:59AM, Monday - Tuesday).

5. This is a State certification requirement. The monthly average limit is expressed as a geometric mean and shall be measured and reported in Colony Forming Units (CFUs) per 100 milliliters.

6. The LC_{50} is the concentration of effluent which causes mortality to 50% of the test organisms. Therefore, a 100% limit means that a sample of 100% effluent (no dilution) shall cause no more than a 50% mortality rate.

7. C-NOEC is the highest effluent concentration at which No Observed Chronic Effect (e.g.

   e.g. growth, reproduction, mortality) will occur at continuous exposure to test organisms (in a life-cycle or partial life- cycle test). The "94% or greater" is defined as a sample which is composed of 94% (or greater) effluent, the remainder being dilution water.

8. The permittee shall conduct chronic (and modified acute) toxicity tests four times per year. The permittee shall conduct chronic (and modified acute) toxicity tests during the second week of the month (any day of the week but no later than Friday) of February, May, August, and November. Results are to be submitted by the 15th day of the month after the sample i.e. March and September and December, See Toxicity Test Procedure and Protocol on Attachment A.

9. Compliance with the copper and phosphorous limits will be effective one year from the effective date of the permit to allow for <u>operational adjustments</u> during the first year of treatment at the new plant. Therefore, for the first year, the permittee will report the copper and phosphorous concentrations while working towards meeting the limits.

Part I.A.1. (Continued)

a. The discharge shall not cause a violation of the water quality standards of the receiving waters.

b. The pH of the effluent shall not be less than 6.5 nor greater than 8.3 at any time, unless these values are exceeded due to natural causes or as a result of the approved treatment processes.

c. The discharge shall not cause objectionable discoloration of the receiving waters.

d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

e. The permittee's treatment facility shall maintain a minimum of 85 percent removal of both total suspended solids and biochemical oxygen demand. The percent removal shall be based on monthly average values.

f. When the effluent discharged for a period of 90 consecutive days exceeds 80 percent of the designed flow, the permittee shall submit to the permitting authorities a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels consistent with approved water quality management plans.

g. The permittee shall minimize the use of chlorine while maintaining adequate bacterial control.

2. All POTWs must provide adequate notice to the Director of the following:

a. Any new introduction of pollutants into that POTW from an indirect discharger in a primary industry category discharging process water; and

b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

c. For purposes of this paragraph, adequate notice shall include information on:

(1) the quantity and quality of effluent introduced into the POTW; and

(2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

3. Prohibitions Concerning Interference and Pass Through:

a. Pollutants introduced into POTW's by a non-domestic source (user) shall not pass through the POTW or interfere with the operation or performance of the works.

b. If, within 30 days after notice of an interference or pass through violation has been sent by EPA to the POTW, and to persons or groups who have requested such notice, the POTW fails to commence appropriate enforcement action to correct the violation, EPA may take appropriate enforcement action.

4. Toxics Control

a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.

b. Any toxic components of the effluent shall not result in any demonstrable harm

to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

5. Numerical Effluent Limitations for Toxicants

EPA or DEP may use the results of the toxicity tests and chemical analyses conducted pursuant to this permit, as well as national water quality criteria developed pursuant to Section 304(a)(1) of the Clean Water Act (CWA), state water quality criteria, and any other appropriate information or data, to develop numerical effluent limitations for any pollutants, including but not limited to those pollutants listed in Appendix D of 40 CFR Part 122.

B. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from the outfall listed in Part I A.1. Discharges of wastewater from any other point sources, including sanitary sewer overflows (SSO) if any, are not authorized by this permit and shall be reported in accordance with Section D.1.e. (1) of the General Requirements of this permit (Twenty-four hour reporting).

C. OPERATION AND MAINTENANCE OF THE SEWER SYSTEM

Operation and maintenance of the sewer system shall be in compliance with the General Requirements of Part II and the following terms and conditions:

1. Maintenance Staff

The permittee shall provide an adequate staff to carry out the operation, maintenance, repair, and testing functions required to ensure compliance with the terms and conditions of this permit.

2. Infiltration/Inflow

The permittee shall eliminate excessive infiltration/inflow to the sewer system. A summary report of all actions taken to minimize infiltration/inflow during the previous calendar year shall be submitted to EPA and the MA DEP by February 28th of each year. This report shall also include a graph of flows to the treatment plant during the year and an analysis of I/I trends (i.e, is I/I being reduced) If there have been any unauthorized discharges from the collection system during the previous calendar year which were caused by inadequate sewer system capacity, the permittee shall also include in this report an evaluation of actions necessary to restore adequate capacity.

3. Alternate Power Source

In order to maintain compliance with the terms and conditions of this permit, the permittee shall continue to provide an alternative power source with which to

sufficiently operate its treatment works (as defined at 40 CFR §122.2).

D. SLUDGE CONDITIONS

1. The permittee shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices and with the CWA Section 405(d) technical standards.

2. The permittee shall comply with the more stringent of either the state or federal (40 CFR part 503) requirements.

3. The requirements and technical standards of 40 CFR part 503 apply to facilities which now perform or will in the future perform one or more of the following use or disposal practices.

   a. Land application - the use of sewage sludge to condition or fertilize the soil

   b. Surface disposal - the placement of sewage sludge in a sludge only landfill

   c. Sewage sludge incineration in a sludge only incinerator at Belchertown's WRF.

4. The 40 CFR part 503 conditions do not apply to facilities which place sludge within a municipal solid waste landfill. These conditions also do not apply to facilities which do not dispose of sewage sludge during the life of the permit but rather treat the sludge (e.g. lagoons- reed beds), or are otherwise excluded under 40 CFR 503.6.

5. The permittee shall use and comply with the attached compliance guidance document to determine appropriate conditions. Appropriate conditions contain the following elements.
   - General requirements
   - Pollutant limitations
   - Operational Standards (pathogen reduction requirements and vector attraction reduction requirements)
   - Management practices
   - Record keeping
   - Monitoring
   - Reporting

   Depending upon the quality of material produced by a facility, all conditions may not apply to the facility.

6. The permittee shall monitor the pollutant concentrations, pathogen reduction and vector attraction reduction at the frequency indicated below. This frequency is based upon the volume of sewage sludge generated at the facility in dry metric tons per year:

   less than 290..... 1/ year
   290 to less than1500..... 1 /quarter

1500 to less than 15000..... 6 /year
15000 + ... 1 /month

7. The permittee shall sample the sewage sludge using the procedures detailed in 40 CFR 503.8

8. The permittee shall submit an annual report containing the information specified in the guidance. Reports are due annually by February 19. Reports shall be submitted to the address contained in the reporting section of the permit.

E. MONITORING AND REPORTING

1. Reporting

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(s) postmarked no later than the 15th day of the month following the effective date of the permit.

Signed and dated originals of these, and all other reports required herein, shall be submitted to the Director and the State at the following addresses:

Environmental Protection Agency
Water Technical Unit (SEW)
P.O. Box 8127
Boston, Massachusetts 02114

2. A copy of the Discharge Monitoring Reports and all other reports required herein, <u>except for **toxicity** test reports</u>, shall be submitted to MADEP at the following address:

Massachusetts Department of Environmental Protection
Western Regional Office - Bureau of Resource Protection
436 Dwight Street
Springfield, MA 01103

3. Copies of all Discharge Monitoring Reports **and toxicity** test reports required by this permit shall be submitted to MADEP the following address:

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd floor
Worcester, Massachusetts 01608

F. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (DEP) under federal and state

law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap.21, §43.

Each Agency shall have the independent right to enforce the terms and conditions of this permit. Any modification, suspension or revocation of this permit shall be effective only with respect to the agency taking such action, and shall not affect the validity or status of this permit as issued by the other agency, unless and until each agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this permit is declared, invalid, illegal or otherwise issued in violation of state law such permit shall remain in full force and effect under federal law as an NPDES permit issued by the U.S. Environmental Protection Agency. In the event this permit is declared invalid, illegal or otherwise issued in violation of federal law, this permit shall remain in full force and effect under state law as a permit issued by the Commonwealth of Massachusetts.